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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,457	11/15/2000	Thomas Peter Emmons JR.	IRI03902	3369

22863 7590 07/26/2004

MOTOROLA, INC.  
CORPORATE LAW DEPARTMENT - #56-238  
3102 NORTH 56TH STREET  
PHOENIX, AZ 85018

EXAMINER

MOORE JR, MICHAEL J

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 07/26/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/713,457

Applicant(s)

EMMONS ET AL.

Examiner

Michael J. Moore, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12, 14-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 5-9 is/are allowed.
- 6) ☒ Claim(s) 10, 16, 17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Drawings***

1. Replacement drawing sheets were received on 5/17/2004. These drawings are proper and have been entered.

### ***Claim Objections***

2. Claims **10, 11, 12, 19, and 20** are objected to because of the following:

Regarding claim **10**, the word "one" is missing between the words "in" and "or" on line 6.

Regarding claims **11 and 12**, these claims appear to be identical in Applicant's amendment.

It appears that claims **19 and 20** have been amended from their originally filed state in the amendment submitted 5/17/2004 even though claims **19 and 20** are indicated as "original" in this submitted amendment. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims **10, 16, 17, and 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanno et al. (U.S. 6,208,624) in view of Seshadri et al. (U.S. 6,044,073).

Regarding claim **10**, Tanno et al. discloses the receiving of a modulated data stream with the mobile station of Figure 9. Tanno et al. also discloses the frequency demodulation of the modulated data stream with demodulator element 23 of Figure 9. Tanno et al. also discloses the decoding of the spread data stream(s) out of a same frequency band with the CDMA despreader element 27 of Figure 9. Tanno et al. does not disclose the demultiplexing of the multiplexed data streams. However, Seshadri et al. discloses a demultiplexer element 910 in Figure 9, which demultiplexes a received data stream that is demodulated and despread by elements 904 and 906, respectively. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the demultiplexing of Seshadri et al. with the despreading and demodulation elements of the Tanno et al. reference. A motivation for doing so would be to allow a signal to be recovered from a transmitter that performs the opposite operations of spreading, multiplexing, and modulation.

Regarding claim **16**, Tanno et al. discloses an encoder (spreader element 14c) that uses CDMA to encode a first data stream (control info element D3) that has a first

bit rate in Figure 8. Tanno et al. also discloses in Figure 8 a multiplexer (multiplexer element 17) which multiplexes the resulting spread data stream with a second data stream (paging info element D1) that has a higher bit rate than the first data stream. Tanno et al. does not disclose a modulator coupled to a multiplexer that frequency modulates the multiplexed data stream. However, Seshadri et al. discloses a multiplexer element 318 that outputs a multiplexed data stream to a modulator element 324 in Figure 3. At the time of the invention, it would have been obvious for someone of ordinary skill in the art given these references to add modulation as taught in Seshadri et al. to the multiplexed system of the Tanno et al. reference. A motivation for doing so would be to enable the multiplexed data stream to be transmitted over the air using an allowed frequency carrier.

Regarding claim 17, Tanno et al. further discloses multiplexer 17 (data storage device) that handles timeslot allocation as shown in Figure 4.

Regarding claim 19, Tanno et al. discloses a demodulator for frequency demodulating a modulated data stream with the demodulator element 23 of Figure 9. Tanno et al. also discloses a decoder that uses CDMA for decoding the spread data stream with despread element 27 of Figure 9. Tanno et al. does not disclose a demultiplexer that is coupled to the demodulator, which demultiplexes the multiplexed data stream(s). However, Seshadri et al. discloses a demultiplexer element 910 in Figure 9 that demultiplexes a received data stream that is demodulated and despread. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the demultiplexing of Seshadri et al. with the

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despreading and demodulation elements of the Tanno et al. reference. A motivation for doing so would be to allow a signal to be recovered from a transmitter that performs the opposite operations of spreading, multiplexing, and modulation.

Regarding claim **20**, Tanno et al. discloses the apparatus of claim **19**. Tanno et al. does not disclose a parser that is coupled to the demodulator, which demultiplexes the multiplexed data stream(s). However, Seshadri et al. discloses a demultiplexer element 910 in Figure 9 that demultiplexes a received data stream and sends the stream to a decoder 912. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the demultiplexing of Seshadri et al. with the despreading and demodulation elements of the Tanno et al. reference. A motivation for doing so would be to allow a signal to be recovered from a transmitter that performs the opposite operations of spreading, multiplexing, and modulation.

Regarding claim **21**, Tanno et al. further discloses a decoder that uses CDMA for decoding a spread data stream with despreader element 27 of Figure 9.

***Allowable Subject Matter***

6. Claims **1-3 and 5-9** are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim **1**, the prior art of record teaches the receiving of one or more first data streams each having a first information bit rate and one or more second data streams each having a second information bit rate that is higher than the first

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information bit rate. The prior art of record also teaches encoding the one or more first data streams using CDMA, multiplexing data streams, frequency modulating multiplexed data streams, and transmitting at a first power level. The prior art of record fails to teach "wherein the one or more first data streams and the one or more second data streams have a common transmission bit rate, resulting in differences in link margin for the one or more first data streams and the one or more second data streams".

Regarding claims **2, 3, and 5-9**, these claims are further limiting to claim **1** and are thus also allowable over the prior art of record.

8. Claims **11, 12, 14, and 15** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims **11 and 12**, the prior art of record teaches the method of claim **10**. The prior art of record fails to teach demodulating one or more spread data streams out of a different frequency from one or more non-spread data streams. The prior art of record also fails to teach demultiplexing one or more spread data streams out of a same timeslot as one or more non-spread data streams.

Regarding claim **14**, the prior art of record teaches the method of claim **10**. The prior art of record fails to teach decoding using a chip rate that results in a higher link

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margin for the one or more decoded data streams than a link margin for the one or more non-spread data streams.

Regarding claim **15**, this claim is further limiting to claim **14** and is also allowable over the prior art of record.

### ***Response to Arguments***

10. Applicant's remarks filed 5/17/2004 have been fully considered but they are not persuasive.

Regarding claim **1**, the addition of the subject matter from claim **4** has put claim **1** in allowable form. In response to Applicant's remarks, it is understood that previously indicated allowable subject matter in the Office Action dated 2/17/2004 was also added to independent claims **10 and 16** from dependent claims **13 and 18**, respectively, in Applicant's amendment. However, upon further examination it has been determined that the added limitations from claims **13 and 18** do not make claims **10 and 16** allowable over the prior art of record for the reasons stated above in the art rejection section.

Regarding claims **11 and 12**, these claims as originally filed were distinct from one another, but are identical in Applicant's amendment. Regarding claims **19 and 20**, these claims appear to have been amended from their original state, but are referred to in Applicant's amendment as being in original form. If these claims are to be amended, they should be indicated as such.

### ***Conclusion***



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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sato (U.S. 6,289,009), Honkasalo (U.S. 6,510,148), Kukla et al. (U.S. 6,735,189), and Sato (U.S. 6,130,884) are all references that contain material pertinent to this application.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (703) 305-8703. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.  
Examiner  
Art Unit 2666

mjm MM

  
**FRANK DUONG**  
**PRIMARY EXAMINER**